



## Memorandum

*To: Mike Cirian, USEPA*

*From: Sean Coan, P.G.; Damon Repine, CSP*

*Date: April 12, 2016*

*Subject: Draft Comments – Geophysical Work Plan, Phase 1 Site Characterization, Columbia Falls Aluminum Company, Columbia Falls, Montana*

CDM Federal Programs Corporation (CDM Smith) at the request of the United States Environmental Protection Agency (USEPA), has reviewed the *Geophysical Work Plan* (Work Plan) prepared for Spectrum Geophysics (Spectrum) for Roux Associates, Inc. (Roux) and Columbia Falls Aluminum Company LLC (CFAC) for the Former Primary Aluminum Reduction Facility (Site), located in Columbia Falls, Montana. Comments are organized in General and Specific Comments. Specific Comments are organized by corresponding section of the document.

### General Comments

- 1) Please present the data quality objectives (DQOs) for the geophysical survey. How will the geophysical data be used to fulfill these objectives? This information may not be known by Spectrum, and will thusly need to be supplied by Roux.
- 2) Please add the rationale for placement of the electrical resistivity/induced polarization (ER/IP) transects, particularly the two transects on the westerly side of the Site. How will the data collected from these areas be used to focus the investigation activities? This information may not be known by Spectrum, and will thusly need to be supplied by Roux.

### Specific Comments

- 1) Page 1, Section 1.0: Please present DQOs for the geophysical survey in the introductory section. Please discuss how the geophysical survey data will be used to fulfill the objectives. Also, in the *Phase I Site Characterization Sampling and Analysis Plan* (SAP, Roux 2015) it is stated that the results of the survey will be considered during the intrusive phase(s) of the remedial investigation. Please include in the DQO list and subsequent discussion a description of how the data will be used to focus the investigation.
- 2) Page 5, Section 4.1: Please add a discussion of the rationale for placement of the of the ER/IP transcripts to the section. The SAP identifies three transect locations: in the vicinity of the West Landfill; in the vicinity of the Wet Scrubber Sludge Pond; and at an unspecified location perpendicular to Teakettle Mountain. The SAP does not mention the additional transect locations adjacent to the North-West Percolation Pond and to the west of the Main Plant Area.

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The rationale for all transects must be presented in the Work Plan. See General Comment 2 above.

3) Figure 1: Please add labels for Site features adjacent to or cut by the transects:

- |                                  |                               |
|----------------------------------|-------------------------------|
| ■ Asbestos Landfill              | ■ Center Landfill             |
| ■ Sanitary Landfill              | ■ East Landfill               |
| ■ West Landfill                  | ■ Main Plant Area             |
| ■ Wet Scrubber Sludge Pond       | ■ Rod Mill                    |
| ■ Former Drum Storage Area       | ■ North-West Percolation Pond |
| ■ North and South Leachate Ponds |                               |